6.01 SUMMARY OF CORRIDOR ISSUES AND CONCERNS

The USH 51 Needs Assessment study process has raised a number of issues and concerns about the existing facility and its ability to safely accommodate multimodal forms of transportation both today and in the future.

The facility has some existing attributes that do not meet current design standards and a crash history that is a record of the corridor relationship to the traffic it carries. The facility has areas of substandard geometrics in the form of horizontal and vertical curves that do not have the associated lower speed warning signs posted. The majority of rural and urban intersections do not have designated turn lanes that would separate low speed or stopped vehicles from the main traffic stream. There is insufficient ability to pass slow-moving vehicles. The number of access points in the rural segments is currently at the maximum advised number per mile recommended by the Department's FDM. The crash history of USH 51 shows that within the City of Stoughton the crash rate is more than twice the statewide average and the fatal crash rate is nearly seven times the statewide average. The CTH B (west)/CTH AB intersection and the CTH N intersection both have crash rates high enough to meet the Department's criteria to "warrant further investigation". Bicycle and pedestrian facilities are intermittent within the City of Stoughton and in the rural segments of USH 51, nonexistent.

The next section prioritizes needs, providing a hierarchy of issues to be dealt with.

6.02 NEEDS PRIORITIZATION

A. Motor Vehicle Needs

One of the concerns voiced by local officials and area residents during public outreach activities was the increasingly aggressive and less patient drivers on USH 51. The public feels that there is a need for increased law enforcement along the corridor.

Figure 6.02-1 Exchange Street Intersection

Improvements to lane markings and signage at some of the intersections along the study corridor are another need. The USH 51/CTH N intersection on the east side of Stoughton provides two lanes divided by a solid white pavement marking for both eastbound and westbound USH 51 traffic, but no directional pavement markings are provided. Public feedback indicated that drivers are often confused about the designation of the lanes and frequently make sudden lane changes at the intersection. Northbound USH 51 traffic at the USH 51/Exchange Street intersection has an exclusive right turn lane (see Figure 6.02-1). Although pavement markings exist,

public feedback indicates that drivers often use the exclusive right turn lane as a through lane. This makes it more difficult for vehicles on Exchange Street to enter USH 51 because of uncertainty about the intentions of the northbound USH 51 vehicles using the exclusive right turn lane.

Crash rates in Stoughton indicate that safety improvements to USH 51 in Stoughton (between CTH N and STH 138 west) are needed. Crash rates at some specific intersections also suggest safety improvements are an emerging need. These intersections, from highest priority to lowest, include CTH B west/CTH AB, CTH N, Page Street, and Tower Drive. As noted earlier, some recent safety improvements have been made within the City of Stoughton. Full evaluation of these improvements will require at least three to four years of crash data.

Maintaining suitable access to USH 51 within Stoughton, between Stoughton and McFarland, and within McFarland is also needed. Traffic modeling of the existing conditions showed that the CTH B East intersection operates at Level of Service (LOS) E during the AM peak hour. 2030 modeling assuming 1.2 percent annual growth showed that the majority of the unsignalized intersections from the east side of Stoughton to the study limits at Burma Road in McFarland operate at LOS F (see Figure 6.02-2). Using the higher 2030 traffic volumes assuming 1.8 percent annual growth the modeling showed that access to or across the highway anywhere but at a signalized intersection will be very difficult. Substantial queuing will occur on all the side streets at unsignalized intersections and on all approaches to many of the signalized intersections as well. This indicates that accessing USH 51 will become increasingly difficult as traffic volumes grow.

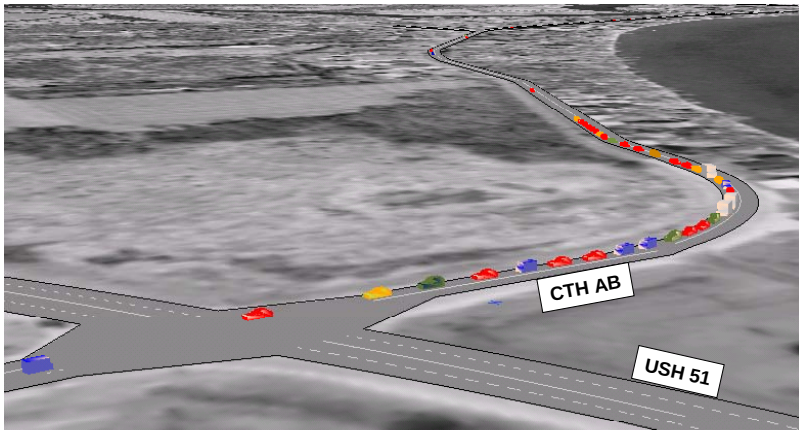

Figure 6.02-2 Queuing During the AM Peak Hour on CTH AB – 2030 Assuming 1.2 Percent Annual Growth

Maintaining suitable mobility and reducing congestion on the two-lane rural segment of USH 51 between Stoughton and McFarland is another need. Traffic modeling shows that this stretch of highway currently operates at LOS D. In addition, this segment of USH 51 satisfies the FDM's warrant for consideration of passing lanes and meets three of the four criteria of a "higher priority" highway.[1] Modeling of future traffic conditions indicates that within Stoughton operations could break down frequently because of gridlock of the street system. Between Stoughton and McFarland passing on rural USH 51 will become nearly impossible and average travel speeds may drop as low as 35 mph.

B. Other Transportation Modes

1. Bicycle and Pedestrian Needs

Public feedback indicates there are multiple needs concerning bicyclists and pedestrians. First, a pedestrian crossing of USH 51 between Babcock Park and its overflow parking lot in McFarland is needed for safety reasons. The Village and the Dane County Parks Department have both indicated that they support the concept of a grade separated pedestrian crossing at Babcock Park, and would like to see it investigated further. Second, improvements to the discontinuous bicycle and pedestrian facilities in both Stoughton and McFarland are needed. The current facilities limit access and mobility for their users (see Figure 6.02-3). Third, access for bicyclists and pedestrians to and across USH 51 is very limited on the west side of Stoughton. As this area that continues to develop improvements to these facilities are needed.

Figure 6.02-3 Discontinuous Facilities in McFarland (right) and Stoughton (left)

Providing a suitable bicycle and pedestrian route between Stoughton and McFarland is a need that was identified by both public feedback and by the Wisconsin Department of Natural Resources (DNR). The popularity of existing multiple-use trails in and around the City of Madison indicates there is demand for such facilities. The Wisconsin State Bicycle Map and feedback from local bicyclists indicated that USH 51 itself is not a suitable route between Stoughton and McFarland. The DNR indicated to the study team that there are plans for a connection from McFarland to Madison's Capitol City Bike Trail, and that converting the WSOR railroad line that crosses the study corridor to a multiple use trail is a long-term goal.

2. Transit and Transportation Demand Management

Promotion of existing transit and transportation demand management programs serving the users of the study corridor is needed. Existing programs include the State Vanpool, Dane County Rideshare, Stoughton Shared Ride Taxicab, and other specialized transportation services. There is also a need to plan for future park-and-ride sites. USH 51 and CTH B East and the WSOR railroad track crossing are two sites listed as "high priority" in WisDOT's Park-and-Ride System Plan for District 1.

[1] While this is an indication of the need to consider measures that maintain mobility on the highway, it does not imply that passing lane construction would be a cost-effective means of doing so. Further investigation is needed.

Transport 2020 is an alternatives analysis for transit in the greater Madison metropolitan area completed in August 2002. Transport 2020 identified a locally preferred alternative consisting of a start-up system and extensions to that system. Planning for implementation of the Transport 2020 start-up system and the eventual extensions is needed.

C. Coordination of Land Use and Transportation Planning

Development on the west side of Stoughton adjacent to USH 51 may continue depending upon the outcome of the City's comprehensive planning effort. USH 51 is a high-speed, high-mobility corridor in this area and continued application of appropriate controls on new development to accommodate transportation needs is and will continue to be needed. These controls include proper building setbacks, driveway entry throat lengths, access spacing, and more. Preservation of appropriate right-of-way widths to allow for future USH 51 improvement options is also needed.

Coordination with local utilities and the WSOR railroad will be needed as land use surrounding the corridor changes. With changes in land use and growth in population changes to the existing utility system are likely. As traffic volumes on USH 51 continue to grow, it becomes more likely that changes to railroad crossings may be needed for safety reasons.

Land use planning that complements and works in conjunction with the proposed transportation system is a long-term need for any highway corridor including USH 51. Plans for the future of the transportation system and for future land use need to be developed in parallel with one another. Without coordination between the two planning efforts, potential transportation corridors can vanish leading to substantial increases in the cost of the proposed transportation improvements or costly reinvestigations of feasible improvement alternatives.

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